

WELCOME TO 7TH GRADE MATH

Dear Students and Parents,

- This summer packet must be completed BEFORE the first day of school.
- You are to show all work. (no calculator)
- Packets will be graded as a homework assignment.
- Packets will be collected the first day of school.
- You will be given a test on this material within the first week of school that will count toward your first marking period grade.

Do not expect to complete this packet in one sitting. It is recommended that you work on one worksheet at a time. Plan to take your time when working on these problems. You may use another sheet of paper if there is not enough room to show your work. Showing work demonstrates to your teacher that you fully understand the concepts.

If you need help, you can go to <http://www.khanacademy.org> and sign up (free) to begin using this online learning tool.

Students and Parents: To show that you have read and understood that instructions above, please sign below and return it to your teacher on the first day of school.

Thank you and have a great summer!

Student Name: _____ (print)

Student Signature: _____

Parent Signature: _____

Basic Arithmetic Skill

Adding or Subtracting Fractions with Different Denominators

Evaluate each expression. Find a common denominator

1) $\frac{3}{4} + \frac{2}{5} \rightarrow \frac{15}{20} + \frac{8}{20} = \frac{23}{20} = 1\frac{3}{20}$ 2) $1 + \frac{9}{5}$

3) $\frac{13}{7} + \frac{3}{2}$

4) $\frac{5}{8} - \frac{1}{7}$

5) $1 + \frac{3}{7}$

6) $\frac{1}{7} + \frac{3}{2}$

7) $\frac{4}{5} + \frac{9}{7}$

8) $\frac{5}{4} + \frac{1}{2}$

9) $\frac{7}{4} + \frac{5}{8}$

10) $7 - \frac{1}{4}$

11) $\frac{3}{2} + \frac{4}{3}$

12) $3 - \frac{3}{7}$

13) $\frac{2}{3} + \frac{10}{7}$

14) $\frac{1}{3} + \frac{1}{2}$

15) $4 - \frac{13}{7}$

16) $\frac{4}{5} + \frac{1}{3}$

17) $\frac{3}{2} + \frac{11}{6}$

18) $\frac{4}{7} + \frac{3}{2}$

19) $\frac{5}{7} + \frac{1}{4}$

20) $\frac{3}{2} + \frac{13}{7}$

Multiplying and Dividing Mixed Fractions (A)

Find the value of each expression in lowest terms.

1. $3\frac{2}{7} \div 1\frac{1}{4}$

6. $1\frac{1}{3} \times 1\frac{2}{3}$

11. $1\frac{3}{8} \div 1\frac{1}{12}$

$$\frac{4}{3} \times \frac{5}{3} = \frac{20}{9} = 2\frac{2}{9}$$

2. $1\frac{2}{3} \div 3\frac{1}{3}$

7. $1\frac{1}{3} \times 2\frac{1}{5}$

12. $2\frac{7}{8} \div 5\frac{1}{2}$

3. $2\frac{1}{4} \div 1\frac{1}{2}$

8. $2\frac{1}{7} \div 2\frac{1}{2}$

13. $3\frac{2}{3} \div 1\frac{1}{6}$

4. $6\frac{1}{2} \div 2\frac{2}{3}$

9. $1\frac{3}{11} \div 2\frac{1}{3}$

14. $1\frac{3}{8} \times 3\frac{1}{3}$

5. $2\frac{1}{10} \div 2\frac{3}{5}$

10. $3\frac{1}{2} \div 2\frac{3}{4}$

15. $1\frac{4}{11} \div 1\frac{1}{4}$

Change mixed numbers to improper fractions
Do not divide multiply by the reciprocal

Adding/Subtracting Decimals (A)

Calculate each sum or difference.

Line up decimal points.

$$800.54 + 90.52 = + \begin{array}{r} 800.54 \\ 90.52 \\ \hline 891.06 \end{array}$$

$343.4 + 5.607 =$

$94.9 - 41.871 =$

$809.144 - 15.96 =$

$803.309 - 133.36 =$

$767.3 - 24.9 =$

$489.08 - 4.2 =$

$921.74 + 2.7 =$

$384.94 + 17.348 =$

$260.65 - 40.9 =$

$67.1 - 1.19 =$

$35.438 - 17.2 =$

$686.4 - 199.61 =$

$6.356 + 5.8 =$

$75.715 + 30.5 =$

$89.88 - 48.8 =$

$3.7 + 1.5 =$

$64.32 + 21.63 =$

$875.75 + 26.64 =$

$656.86 + 46.37 =$

Multiplying 3-Digit by 2-Digit Numbers with Various Decimal Places (A)

Name: _____

Date: _____

Calculate each product.

$$\begin{array}{r} 68.2 \\ \times 8.4 \\ \hline 2728 \\ 5456 \\ \hline 572.88 \end{array}$$

$$\begin{array}{r} 630 \\ \times 1.2 \\ \hline \end{array}$$

$$\begin{array}{r} 16.0 \\ \times 36 \\ \hline \end{array}$$

$$\begin{array}{r} 5.52 \\ \times 0.25 \\ \hline \end{array}$$

$$\begin{array}{r} 32.3 \\ \times 26 \\ \hline \end{array}$$

$$\begin{array}{r} 7.91 \\ \times 0.19 \\ \hline \end{array}$$

$$\begin{array}{r} 26.3 \\ \times 7.8 \\ \hline \end{array}$$

$$\begin{array}{r} 3.07 \\ \times 19 \\ \hline \end{array}$$

$$\begin{array}{r} 63.2 \\ \times 8.5 \\ \hline \end{array}$$

$$\begin{array}{r} 0.394 \\ \times 70 \\ \hline \end{array}$$

$$\begin{array}{r} 55.8 \\ \times 9.4 \\ \hline \end{array}$$

$$\begin{array}{r} 596 \\ \times 3.6 \\ \hline \end{array}$$

$$\begin{array}{r} 940 \\ \times 8.2 \\ \hline \end{array}$$

$$\begin{array}{r} 203 \\ \times 42 \\ \hline \end{array}$$

$$\begin{array}{r} 0.707 \\ \times 0.97 \\ \hline \end{array}$$

$$\begin{array}{r} 906 \\ \times 64 \\ \hline \end{array}$$

$$\begin{array}{r} 310 \\ \times 1.8 \\ \hline \end{array}$$

$$\begin{array}{r} 520 \\ \times 0.92 \\ \hline \end{array}$$

$$\begin{array}{r} 131 \\ \times 0.41 \\ \hline \end{array}$$

$$\begin{array}{r} 6.00 \\ \times 5.1 \\ \hline \end{array}$$

$$\begin{array}{r} 0.913 \\ \times 56 \\ \hline \end{array}$$

$$\begin{array}{r} 12.8 \\ \times 3.8 \\ \hline \end{array}$$

$$\begin{array}{r} 52.2 \\ \times 2.3 \\ \hline \end{array}$$

$$\begin{array}{r} 0.394 \\ \times 76 \\ \hline \end{array}$$

$$\begin{array}{r} 0.411 \\ \times 0.35 \\ \hline \end{array}$$

Dividing Decimals (A)

Find each quotient.

$$0.84 \overline{) 0.2268}$$

$$0.75 \overline{) 0.5775}$$

$$0.94 \overline{) 0.423}$$

$$0.6 \overline{) 0.228}$$

$$0.21 \overline{) 0.0966}$$

$$0.93 \overline{) 0.1023}$$

$$0.61 \overline{) 0.1281}$$

$$0.86 \overline{) 0.645}$$

$$0.42 \overline{) 0.168}$$

$$0.46 \overline{) 0.0506}$$

$$0.35 \overline{) 0.28}$$

$$0.37 \overline{) 0.2035}$$

- move decimal point in divisor to end of the number
- move the decimal point the same # of spaces in the dividend

Try these

1 Write these decimals as fractions:

$0.3 = \frac{3}{10}$

$0.5 = \dots\dots\dots$

$0.6 = \dots\dots\dots$

$0.02 = \dots\dots\dots$

$0.05 = \dots\dots\dots$

$0.25 = \dots\dots\dots$

$0.36 = \dots\dots\dots$

$0.125 = \dots\dots\dots$

2 Write these fractions as decimals:

$\frac{7}{10} = 0.7$

$\frac{1}{5} = \dots\dots\dots$

$\frac{2}{5} = \dots\dots\dots$

$\frac{3}{4} = \dots\dots\dots$

$\frac{7}{8} = \dots\dots\dots$

$\frac{2}{3} = \dots\dots\dots$

$\frac{9}{20} = \dots\dots\dots$

$\frac{7}{25} = \dots\dots\dots$

$$\begin{array}{r} \downarrow \\ 8 \overline{) 7.000} \end{array}$$

3 Write these percentages as decimals:

$3\% = 0.03$

$30\% = \dots\dots\dots$

$25\% = \dots\dots\dots$

$80\% = \dots\dots\dots$

$8\% = \dots\dots\dots$

$12\% = \dots\dots\dots$

$67\% = \dots\dots\dots$

$17.5\% = \dots\dots\dots$

4 Write these percentages as fractions:

$$20\% = \frac{20}{100} = \frac{1}{5}$$

$$75\% = \dots\dots\dots$$

$$5\% = \dots\dots\dots$$

$$30\% = \dots\dots\dots$$

$$40\% = \dots\dots\dots$$

$$15\% = \dots\dots\dots$$

$$24\% = \dots\dots\dots$$

$$35\% = \dots\dots\dots$$

5 Write these decimals as percentages:

$$0.25 = \dots\dots\dots 25\%$$

$$0.5 = \dots\dots\dots$$

$$0.7 = \dots\dots\dots$$

$$0.07 = \dots\dots\dots$$

$$0.45 = \dots\dots\dots$$

$$0.09 = \dots\dots\dots$$

$$0.4 = \dots\dots\dots$$

$$0.375 = \dots\dots\dots$$

6 Write these fractions as percentages:

$$\frac{1}{10} = \dots\dots\dots 10\%$$

$$\frac{1}{5} = \dots\dots\dots$$

$$\frac{9}{10} = \dots\dots\dots$$

$$\frac{3}{4} = \dots\dots\dots$$

$$\frac{4}{5} = \dots\dots\dots$$

$$\frac{17}{20} = \dots\dots\dots$$

$$\frac{1}{3} = \dots\dots\dots$$

$$\frac{2}{3} = \dots\dots\dots$$

All Operations with Integers (A)

Use an integer strategy to find each answer.

$$(-5) + (-4) =$$

$$(-4) \times (-7) =$$

$$(+6) - (-2) =$$

$$(-3) + (+1) =$$

$$(-18) \div (-6) =$$

$$(-1) \times (+5) =$$

$$(-2) \times (-7) =$$

$$(+8) \times (+3) =$$

$$(+9) + (-3) =$$

$$(+3) \times (-1) =$$

$$(-4) - (-1) =$$

$$(+6) + (-5) =$$

$$(-3) + (+9) =$$

$$(-5) \times (+3) =$$

$$(-3) \div (+3) =$$

$$(-3) \times (+3) =$$

$$(-3) + (-6) =$$

$$(+8) + (-9) =$$

$$(-5) \times (+5) =$$

$$(-8) - (+6) =$$

$$(-7) - (-3) =$$

$$(+1) - (-9) =$$

$$(+8) \times (+4) =$$

$$(-4) + (-5) =$$

$$(+8) - (-2) =$$

$$(-9) + (-4) =$$

$$(+6) \times (+3) =$$

$$(-7) - (+2) =$$

$$(+2) \times (-4) =$$

$$(+3) + (-8) =$$

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Name : _____

Two-Step Equations: Whole Numbers

Sheet 1

Solve each equation.

1) $9c + 1 = 10$

2) $6y - 5 = 7$

3) $8 = 3a - 4$

4) $\frac{m}{5} + 9 = 11$

5) $13 + 7x = 27$

6) $17 - q = 6$

7) $\frac{n - 31}{4} = 2$

8) $1 + 2r = 35$

9) $42 + 5t = 8t$

10) $4p - 3 = 17$